

CLAIMS

1. A method of regulating adenovirus packaging comprising the steps of:

5 a. obtaining an adenovirus vector containing a repressor binding site;

b. propagating said vector in the absence of said repressor; and

c. repressing packaging of said vector in the presence of repressor.

10

2. The method of claim 1 wherein the repressor is COUP-TF.

15

3. The method of claim 1 wherein the repressor is lac repressor.

20

4. The method according to claim 1 wherein the propagating step occurs in a first cell line and the repressing step occurs in a second cell line.

25

5. The method of claim 1 wherein the repressing step occurs in a cell line is coinfecte

with a vector expressing the repressor.

30

6. An adenovirus vector comprising an adenovirus packaging sequence containing a plurality of COUP-TF binding sites.

35

7. An adenovirus vector comprising an adenovirus packaging sequence having at least two copies of 5'-TTTGN<sub>8</sub>CG-3' and a plurality of COUP-TF binding sites.

8. An adenovirus vector according to claims 6 or 7 further comprising a heterologous gene for expression in a host.

5 ~~Step 2~~ 9. A method of treating patients comprising the step of:

10 administering an adenovirus vector that was prepared using the adenovirus vector of claim 8 wherein the heterologous gene expresses a therapeutically effective amount of a protein.

15 10. An adenovirus vector containing a packaging signal sequence consisting of at least two copies of 5'-TTTGN<sub>8</sub>CG-3'.

20 11. An adenovirus vector according to claim 10 wherein a repressor binding site is embedded in the packaging signal sequence.

25 12. An adenovirus vector according to claim 10 wherein repressor binding sites flank the packaging signal sequence.

30 13. An adenovirus vector according to claim 10 wherein repressor binding sites alternate with the packaging signal sequence.

35 14. An adenovirus vector according to claim 10 having 3-12 packaging signal sequences.

15. An adenovirus vector according to claim 14 wherein a repressor binding site is located between packaging signal sequences.

5 16. An adenovirus vector according to claim 11 or 15 wherein the repressor binding site is a lac repressor site.

10 17. An adenovirus vector according to claims 11 or 15 wherein the repressor binding site is a E2F binding site.

15 18. An adenovirus vector according to claim 10 further comprising a heterologous gene for expression in a host.

20 19. A method of treating patients comprising the steps of:

25 administering an adenovirus vector that was prepared using the adenovirus vector of claim 18 wherein the heterologous gene expresses a therapeutically effective amount of a protein.

25 20. A composition comprising P-complex.